**13.) How many connections are required for 30 nodes to be connected in a full mesh topology?** (**Calculation Exercise)**

*Answer:*

If n is the number of nodes in the mesh and x is the number of connections then, in a full mesh

x = n (n - 1) / 2

Therefore,

for 30 nodes to be connected in a full mesh topology will be

x = 30 (30-1)/2

**x = 435**

**13.** **Each individual link channel is characterized by a number of different properties. Some of them are a) type of medium, b) signaling method, c) directionality of signals, d) nature of the interfaces with the end nodes, and with other links. What are the other properties?**

*Answer:*

e) link bandwidth

f) restrictions on the length of the channel

g) the time delay between the time the channel receives data from its incoming node and the time it releases the data to its outgoing node

h) the number of connections sharing the channel

i) the noise characteristics of the channel

j) guided or unguided

k) the electrical or optical properties of the channel